

**UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA**

Luminara Worldwide, LLC,

Plaintiff,

v.

Liown Electronics Co. Ltd., Liown Technologies/Beauty Electronics, LLC, Shenzhen Liown Electronics Co. Ltd., Boston Warehouse Trading Corp., Abbott of England (1981), Ltd., BJ's Wholesale Club, Inc., Von Maur, Inc., Zulily, Inc., Smart Candle, LLC, Tuesday Morning Corp., Ambient Lighting, Inc., The Light Garden, Inc., and Central Garden & Pet Co.,

Defendants.

Case No. 14-cv-3103 (SRN/FLN)

**MEMORANDUM OPINION  
AND ORDER**

Shenzhen Liown Electronics Co. Ltd., Liown Technologies/Beauty Electronics, LLC, and Central Garden & Pet Co.,

Counterclaim Plaintiffs,

v.

Luminara Worldwide, LLC, QVC, Inc., Darice, Inc., Bed Bath & Beyond, Inc., Williams-Sonoma Stores, Inc., PC Treasures, Inc., and Brookstone Stores, Inc.,

Counterclaim Defendants.

Joseph W. Anthony, Steven M. Pincus, Courtland C. Merrill, and Daniel R. Hall,  
Anthony Ostlund Baer & Louwagie PA, 90 South 7th Street, Suite 3600, Minneapolis,

MN 55402, for Plaintiff, Counterclaim Defendants, and Third Party Disney Enterprises, Inc.

Thomas N. Millikan, Joseph P. Reid, Kenneth J. Halpern, Yun Louise Lu, and Patrick McKeever, Perkins Coie LLP, 11988 El Camino Real, Suite 350, San Diego, CA 92130, for Defendants and Counterclaim Plaintiffs Liown Electronics Co. Ltd., Liown Technologies/Beauty Electronics, LLC, Shenzhen Liown Electronics Co. Ltd., Boston Warehouse Trading Corp., Abbott of England (1981), Ltd., Von Maur, Inc., Zulily, Inc., Smart Candle, LLC, Tuesday Morning Corp., and The Light Garden, Inc.

Alan G. Carlson, Tara C. Norgard, Jonathan D. Carpenter, and Peter M. Kohlhepp, Carlson, Caspers, Vandenburg, Lindquist & Schuman, P.A., 225 South Sixth Street, Suite 4200, Minneapolis, MN 55402, for Defendants and Counterclaim Plaintiffs Liown Electronics Co. Ltd., Liown Technologies/Beauty Electronics, LLC, Shenzhen Liown Electronics Co. Ltd., Boston Warehouse Trading Corp., Abbott of England (1981), Ltd., BJ's Wholesale Club, Inc., Von Maur, Inc., Zulily, Inc., Smart Candle, LLC, Tuesday Morning Corp., The Light Garden, Inc., and Central Garden & Pet Co.

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SUSAN RICHARD NELSON, United States District Judge

## **I. INTRODUCTION**

This matter is before the Court on the parties' requests for claim construction in their Amended Joint Claim Construction Statement [Doc. No. 204] and supporting briefs (Plaintiff's Memorandum of Law Concerning Claim Construction [Doc. No. 261], Defendants' Responsive Claim Construction Brief [Doc. No. 278], Defendants' Opening Claim Construction Brief [Doc. No. 263], and Plaintiff's Responsive Memorandum of Law Concerning Claim Construction [Doc. No. 275]).

## **II. BACKGROUND**

This litigation involves allegations by Plaintiff Luminara Worldwide, LLC ("Luminara") that Defendants are offering for sale and selling flameless candles that infringe Luminara's patents. Luminara acquired the rights to these patents when it

merged with Candella LLC, which had a license to the patents-in-suit from Third Party Disney Enterprises, Inc. These patents consist of U.S. Patent No. 7,837,355 (the “355 Patent”); U.S. Patent No. 8,070,319 (the “319 Patent”); U.S. Patent No. 8,534,869 (the “869 Patent”); and U.S. Patent No. 8,696,166 (the “166 Patent”) (collectively, “Luminara’s Patents”). (Third Am. Compl. ¶ 20 [Doc. No. 131].) All four Patents are titled “Kinetic Flame Device,” and they issued on November 23, 2010, December 6, 2011, September 17, 2013, and April 15, 2014, respectively. (See Merrill Decl. [Doc. No. 262], Exs. 4–7.) The Abstract of each Patent reads:

An apparatus creating a flickering flame effect. The apparatus includes a housing with an interior space with first and second stages. A drive mechanism generates a time varying electromagnetic field extending into the first stage. A first pendulum member is pivotally mounted in the interior space of the first stage and includes first and second magnets on first and second ends, with the first end proximate to the drive mechanism such that the first magnet interacts with the varying electromagnetic field to cause movement of the pendulum member. The apparatus includes a second pendulum member pivotally mounted in the second stage with a magnet on a first end proximate to the second end of the first pendulum member. A flame silhouette element extends from the second pendulum member, and a light source transmits light onto the flame silhouette, which is moving due to the magnetic coupling of the pendulum members.

(Id., Exs. 4–6; see id., Ex. 7.)<sup>1</sup> And, Figure 1 of each of Luminara’s Patents “shows a cut-away perspective view of an embodiment of a kinetic flame effect device in accordance with the present invention”:

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<sup>1</sup> The first sentence of the Abstract in the ’166 Patent reads: “An apparatus for creating flickering flame effects.” (Merrill Decl., Ex. 7.)

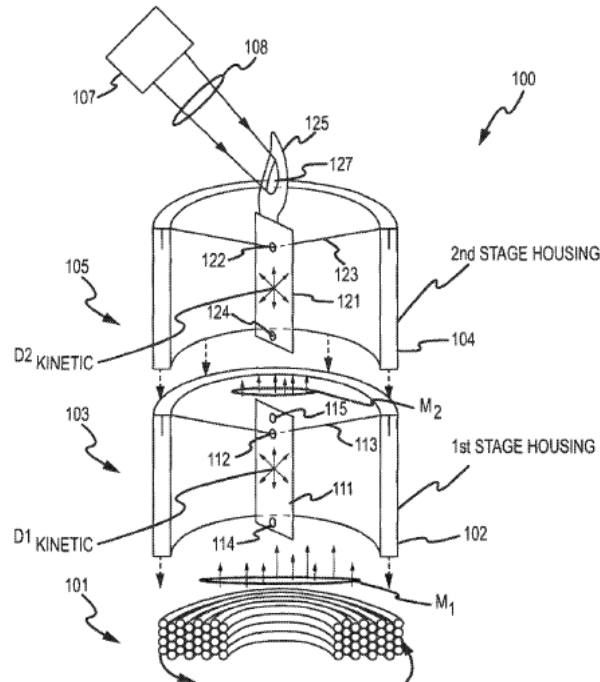


FIG.1

(Id., Ex. 4 at 3:57–59 & Fig. 1; id., Ex. 5 at 3:57–59 & Fig. 1; id., Ex. 6 at 3:65–67 & Fig. 1; id., Ex. 7 at 3:65–67 & Fig. 1.)

The parties dispute ten claim terms from Luminara’s Patents: “coupling member,” “light source selectively transmitting light onto the flame element,” “displaced in a random pattern,” “chaotic motion,” “flame body” or “body,” “flame silhouette element” or “flame element,” “pivot” or “pivot about,” “free to pivot,” “swings or pivots freely,” and “magnetic core.” (Am. Joint Claim Construction Statement [Doc. No. 204] (“Joint Statement”), at 11–16.) Several of these terms appear in the following claims of the ’166 Patent:<sup>2</sup>

1. A pendulum member for generating a flickering flame effect, comprising:

<sup>2</sup> As noted in more detail below, the claim terms, for the most part, each appear in multiple claims. For purposes of brevity, the Court will only cite to these few examples.

a body with upper and lower portions;

a flame silhouette element extending outward from the upper portion of the body; and

a hole in the body below the flame silhouette element, wherein the hole is configured to receive a flame support element such that the flame support element passes through the hole and the body is free to pivot when supported by the flame support element.

. . . .

13. An apparatus for generating a flickering flame effect, comprising:

a housing including an interior space;

a flame body including a pivot hole through the flame body; and

a support element provided extending across the interior space and through the pivot hole, wherein the flame body is pivotally supported within the interior space by the support element.

14. The apparatus of claim **13**, wherein the pivot hole is larger in diameter than an exterior dimension of the support element, whereby the flame body swings or pivots freely about the support element.

(Merrill Decl., Ex. 7 at col. 23, ll. 42–51 (emphases added).) Several of the terms appear in claims 16 and 21 of the '355 Patent:

16. A flame simulator, comprising:

an electrically driven motion engine including a coupling member, wherein the motion engine generates chaotic motion at the coupling member in at least two dimensions;

a movable flame body magnetically coupled to the coupling member such that the chaotic motion of the coupling member is transferred to the movable flame body, and

a light projector emitting a spot of light towards the flame body,

wherein the motion engine further comprises:

a hollow housing a sidewall defining a first end and a second end;

an electromagnetic coil proximate to the first end of the housing;

a drive circuit coupled to the coil and providing a signal to the drive coil to produce a time-varying magnetic field in a vicinity of the drive coil;

a support wire spanning across the housing and affixed to the housing sidewall wherein the support wire is V-shaped so that a vertex of the support wire is near a midpoint of the housing, wherein the support wire is located at a position along the sidewall that is closer to the second end than to the first end; and

a pendulum having a hole, wherein the support wire passes through the hole allowing the pendulum to pivot about the hole on the support wire.

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21. The flame simulator of claim **16**, further comprising a magnetic core positioned to shape the electromagnetic field produced by the coil.

(Id., Ex. 4 at col. 16, l. 44–col. 17, l. 5 & col. 17, ll. 29–31 (emphases added).) Finally,

some of the terms appear in claims 1 and 8 of the '869 Patent:

1. An apparatus for simulating a flickering flame effect, comprising:

a housing including an interior space;

a pendulum member pivotally mounted within the interior space, the pendulum member including first and second ends, wherein the pendulum member further includes a flame element extending from a second end opposite the first end, such that at least a portion of the flame element extends outwardly from the housing;

a first light source selectively transmitting light onto the flame element; and

a drive mechanism positioned in the housing and operating to provide kinetic motion to the first end of the pendulum member,

wherein the pendulum member is pivotally mounted within the interior space using a pendulum support member that extends through a hole in the pendulum member and wherein the pendulum support member is at least semi-rigid and bent to form a low spot at a location where the pendulum member rests.

....

8. The apparatus of claim 1, wherein the pendulum member is displaced in a random pattern over time in response to the drive mechanism.

(Id., Ex. 6 at col. 23, ll. 43–62 & col. 24, ll. 54–56 (emphases added).)

This litigation also involves allegations that Defendant Shenzhen Liown Electronics Co. Ltd. (“Liown”) has improperly obtained and asserted its own patents, U.S. Patent No. 8,789,986 (the ’986 Patent) and U.S. Patent No. 8,926,137 (the ’137 Patent),<sup>3</sup> which are titled “Electronic Lighting Device and Method for Manufacturing Same” and issued on July 29, 2014 and January 6, 2015, respectively (collectively, “Liown’s Patents”). (Id., Exs. 8 & 9.) The Abstracts for Liown’s Patents state:

An electronic lighting device may comprise an enclosure, a light-emitting element, a flame sheet and a swing mechanism. The flame sheet is movably supported or suspended on the enclosure, and may comprise an upper sheet which is of a flame-like shape. The upper sheet is configured to be exposed above the top of the enclosure. Light from the light-emitting element intersects with the surface of the upper sheet so that the light projects onto the surface of the upper sheet. The swing mechanism is disposed beneath the flame sheet and can apply a force on the flame sheet to actuate the flame sheet to sway or swing. By the present application, a visual experience of true fire can be achieved and an interestedness and appreciation can be improved. A method for manufacturing the same is disclosed.

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<sup>3</sup> The ’137 Patent is not referenced in the operative Complaint in this matter, but the parties do include it in their Amended Joint Claim Construction Statement.

(Id., Exs. 8 & 9.) As for claim construction, the parties dispute the significance of the absence of the term “single pendulum” from the claims in Liown’s Patents. (See Joint Statement at 17.)

### III. DISCUSSION

Patent claim construction, i.e., the interpretation of the patent claims that define the scope of the patent, is a matter of law for the court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 970–71 (Fed. Cir. 1995), aff’d, 517 U.S. 370 (1996). Proper claim construction requires an examination of the intrinsic evidence of record, including the claim language, the specification, and the prosecution history. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). The starting point for claim construction is a review of the words of the claims themselves. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citation omitted); see also Vitronics, 90 F.3d at 1582 (“First, we look to the words of the claims themselves, both asserted and unasserted, to define the scope of the patented invention.”). The words of a claim generally carry “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” Phillips, 415 F.3d at 1313.

In addition, “[a] claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.” Merck & Co., Inc. v. Teva Pharm. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005). Thus, “the context in which a term is used in the asserted claim can be highly instructive,” and “[d]ifferences among claims can also be a useful guide in understanding the meaning of particular claim terms.” Phillips, 415 F.3d



at 1314. “For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” Id. at 1314–15.

Claims also must be read in view of the specification. Id. at 1315. The specification is “the single best guide to the meaning of a disputed term.” Id. (quoting Vitronics, 90 F.3d at 1582). The specification may prescribe a special definition given to a claim term or a disavowal of claim scope by the inventor. Id. at 1316. In such cases, the inventor’s intention that is expressed in the specification is dispositive. Id. The Court may not, however, import limitations from the specification into the claims. Id. at 1323. In addition, the Court should also consider the patent’s prosecution history, which provides evidence of how the USPTO and the inventor understood the patent. Id. at 1317.

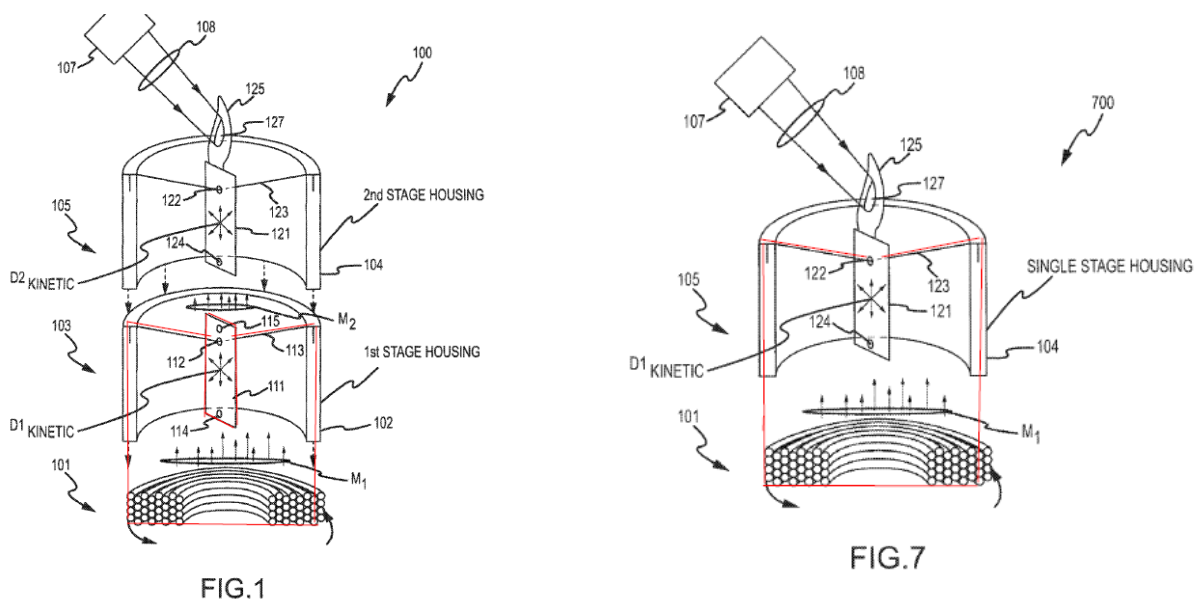
The Court may, in its discretion, consider extrinsic evidence, though such evidence is less reliable than intrinsic evidence. Id. at 1317–18. In most situations, however, intrinsic evidence will resolve any ambiguity in a disputed term, and when it does so, it is improper to rely on extrinsic evidence. Vitronics, 90 F.3d at 1583. Finally, the Court may use a dictionary or technical treatise to “assist in understanding the commonly understood meaning” of a term, so long as any meaning found in such sources does not contradict the definition that is found in the patent documents. Phillips, 415 F.3d at 1322–23.

**A. “Coupling member”**

The parties dispute the meaning of the term “coupling member” as it appears in claims 16 and 22 of the ’355 Patent and claim 17 of the ’319 Patent. (Joint Statement at 11.) Luminara asserts that the Court should construe “coupling member” to mean a “physical structure allowing interaction between the time-varying electromagnetic field produced by the coil and the movable flame body.” (Id.) Defendants assert that the Court should construe “coupling member” as “a structure including a first stage housing, a support, and a pendulum which is capable of magnetic coupling and which transfers its motion to a separate moveable body via magnetic coupling.” (Id.)

For its part, Luminara argues that the claim language and the specification demonstrate that the “coupling member” is the structure that allows interaction between the electromagnetic field produced by the coil and the movable flame body, and that the structure need not include a pendulum member. (Pl.’s Mem. of Law Concerning Claim Construction [Doc. No. 261] (“Pl.’s Br.”), at 8, 10.) According to Luminara, none of the asserted claims that contain the term “coupling member” require a two-stage or two-pendulum embodiment, but rather they may be satisfied by a single-pendulum or two-pendulum embodiment. (Id. at 9.) In either embodiment, Luminara asserts, “chaotic motion” generated by the magnetic field is “transferred to the movable flame body” by the “coupling member,” and so the movable flame body is “magnetically coupled to the coupling member.” (Id. at 10.) In a single-stage embodiment, the chaotic motion is transferred by the coupling member directly from the coil to the movable flame body; and in

a two-stage embodiment, the chaotic motion is transferred by the coupling member through use of an additional pendulum. (Id.) Accordingly, in a two-stage embodiment (e.g., Fig. 1 of the '355 and '319 Patents), the coupling member includes a first-stage housing (102), pendulum (111), and support (113); while in a single-stage embodiment (e.g., Fig. 7 of the '319 Patent), the coupling member includes a housing (104) and support (123), but no pendulum:



(Id. at 9–10.) In addition, Luminara points to the following specification language for the proposition that a “coupling member” can in some cases—but need not always—include a pendulum:

FIG. 1 shows a two stage assembly for convenience in manufacture, but the invention can be implemented as a unitary, single stage body, in two stages as shown in FIG. 1, or as three or more stages if desired.

....

In some cases, the first stage housing 102, pendulum 111, and the support 113 may also be considered or called a coupling member that is provided in the

drive mechanism or motion engine **101** (or coupled to such mechanism, engine, or coil), and, additionally, the second pendulum member **121** along with its flame silhouette **125** may be considered a flame body.

(Merrill Decl., Ex. 4 at col. 4, ll. 49–52 & col. 6, ll. 31–37 (emphasis added); see Pl.’s Br. at 8, 11.) Thus, Luminara argues that Defendants’ proposed construction, which requires the coupling member to include a pendulum, improperly introduces a limitation that is not present in the claim language, is not required by the invention, and is contrary to the specification. (Pl.’s Br. at 10–11.)

Defendants, on the other hand, argue that “the intrinsic evidence . . . clearly and inextricably links the term ‘coupling member’ with the lower pendulum components in a dual pendulum device.” (Defs.’ Opening Claim Construction Br. [Doc. No. 263] (“Defs.’ Br.”), at 5.) For example, Defendants point to the language in asserted claim 16 of the ’355 Patent reciting that a “coupling member” is part of the “motion engine” and moves chaotically, and that the chaotic motion is transferred to the flame body. (Id. at 6.) According to Defendants, the only structure described in Luminara’s Patents that moves chaotically and transfers motion to a flame body is the lower pendulum in a two-pendulum embodiment, which is magnetically coupled to the flame body by a magnet at the top of the lower pendulum. (Id. at 6–7; see Defs.’ Responsive Claim Construction Brief [Doc. No. 278] (“Defs.’ Opp.”), at 4–5.)

Relying on the Federal Circuit’s opinion in TriStrata, Inc. v. Microsoft Corp., 594 F. App’x 653 (Fed. Cir. 2014), Defendants also assert that the use of the term “coupling member” in the specification language simply “coins a pair of shorthands” (i.e., “coupling

member” and “flame body”) to distinguish between, respectively, the lower- and upper-stage components:

In some cases, the first stage housing 102, pendulum 111, and the support 113 may also be considered or called a coupling member that is provided in the drive mechanism or motion engine 101 (or coupled to such mechanism, engine, or coil), and, additionally, the second pendulum member 121 along with its flame silhouette 125 may be considered a flame body.

(Merrill Decl., Ex. 4 at col. 6, ll. 31–37 (emphases added); see Defs.’ Br. at 7–8.)

Defendants also point to several excerpts of the ’355 Patent Abstract and specification that describe the magnetic coupling of pendulum members or magnets on the pendulum members. (Defs.’ Br. at 8.)

As for Luminara’s proposed definition, Defendants assert that, contrary to the claim language requiring “chaotic motion at the coupling member” and “chaotic motion of the coupling member,” none of the structures that Luminara identifies as part of the coupling member in a single-pendulum embodiment move at all. (Defs.’ Opp. at 4.) Similarly, Defendants claim that, in a single-pendulum embodiment, the flame body moves because of the magnetic field generated by the coil and not because any chaotic motion was transferred to it. (Id. at 5–6.) Moreover, Defendants argue that there is nothing in the intrinsic record to support the notion that the housing around the flame body is a “coupling member.” (Id. at 11.) On the contrary, they assert, the specification states that the first-stage housing—and not the second-stage housing—may be part of the coupling member, and does not use the term “coupling member” when describing the single-pendulum embodiment in Fig. 7. (Id. at 11–12.) In addition, Defendants claim that Luminara’s proposed definition—which

includes a housing, drive, and support wire—would improperly render the term “coupling member” superfluous because some of the asserted claims recite “coupling member” separately from a housing, drive and support wire. (*Id.* at 12.)

The Court finds that the intrinsic evidence supports Luminara’s proposed construction. First, as Luminara points out, none of the relevant asserted claims that contain the term “coupling member” expressly require a two-stage embodiment. Nor do those claims expressly require that the coupling member itself move. Rather, the chaotic motion must be generated “at”—i.e., at the location of, or within—the coupling member. See Merriam-Webster’s Collegiate Dictionary 72 (10th ed. 1999) (stating that “at” is “used as a function word to indicate presence or occurrence in, on, or near”). That chaotic motion—i.e., the chaotic motion “of,” or belonging to, the coupling member—must be transferred to the moveable flame body. (See Hall Decl. [Doc. No. 276], Ex. 1 (Merriam-Webster Online Dictionary defining “of” as “belonging to, relating to, or connected with”).)

Second, the Court is not persuaded by Defendants’ argument that the specification language simply coined nicknames for the upper- and lower-stage components. Under that reading, Defendants import the requirement of a pendulum member into the term “coupling member” every time it is used, not just “in some cases.”<sup>4</sup> Accordingly, Defendants’ construction actually is contrary to the specification language. Although

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<sup>4</sup> Moreover, as Luminara points out, the upper-stage component in a two-stage embodiment includes a “flame body” as just one of its components, along with a housing and support member, and so it would be illogical to use “flame body” as shorthand for the entire upper-stage component. (Pl.’s Responsive Mem. of Law Concerning Claim Construction [Doc. No. 275], at 3 (citing Merrill Decl., Ex. 4 at col. 8, ll. 23–42).)

Defendants’ argument would be more plausible if the specification language stated that, “in some claims, the first stage housing 102, pendulum 111, and the support 113 may also be considered or called a coupling member,” the language does not say that.

TriStrata, Inc. does not mandate a different result. In that case, the Federal Circuit affirmed the district court’s construction of the term “seal” to mean, in relevant part, “a data structure generated by a security server and containing a key,” based on language in the specification stating that “the encoded key is called a seal” and the “security server generates what is called a seal.” 594 F. App’x at 654–55. Unlike the present case, however, nothing in the specification language in TriStrata, Inc. limited the circumstances in which “the encoded key [was] called a seal” or the “security server generates what [was] called a seal” to “some cases.”

Finally, it is Defendants’—and not Luminara’s—proposed construction of “coupling member” that necessarily renders that claim term superfluous. As both parties point out, claim 16 of the ’355 Patent and claim 17 of the ’319 Patent recite the claim terms “coupling member,” “housing,” “drive,” and “support wire.” Defendants’ proposed definition specifically includes the terms “housing” and “support.” Luminara’s proposed definition, on the other hand, generically refers to a “physical structure” and so does not automatically render superfluous any specific claim terms.<sup>5</sup> For these reasons,

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<sup>5</sup> That being said, the Court notes that Luminara concedes that its definition, like Defendants’, would include the housing and support. (Markman Hr’g Tr. dated Sept. 15, 2015 [Doc. No. 291], at 6:5–9.) At the very least, then, the definitions proposed by both sides would render the term “coupling member” superfluous to some degree. (See Pl.’s Opp. at 2–3.) Therefore, this consideration is not dispositive of the matter.

the Court finds that the proper construction of “coupling member” is “physical structure allowing interaction between the time-varying electromagnetic field produced by the coil and the movable flame body.”

**B. “Light source selectively transmitting light onto the flame element”**

The parties dispute the meaning of the term “light source selectively transmitting light onto the flame element” as it appears in, for example, claims 1, 5, 6, and 34 of the ’869 Patent. (Joint Statement at 11.) Luminara asserts that no construction of this term is needed, but that, if the Court construes the term, the proper construction is “a light source aimed to direct light toward the flame silhouette.” (*Id.*) Defendants, on the other hand, assert that proper construction is “a light source transmitting light, that varies in brightness or color, onto the flame silhouette element.” (*Id.*) Defendants contend that construction is necessary because they have argued that—under their definition—their products do not selectively transmit light, but rather consistently transmit light, and so they would have a non-infringement defense if the Court adopts their construction. (*See* Markman Hr’g Tr. dated Sept. 15, 2015 [Doc. No. 291] (“Tr.”), at 35:7–19.)

In support of its proposed definition, Luminara argues that a reference to controlling the direction of the light, rather than the brightness or intensity of the light, is consistent not only with the term’s plain meaning, but also with the way the term is used in the claims. (*See* Pl.’s Br. at 12–13; Pl.’s Responsive Mem. of Law Concerning Claim Construction [Doc. No. 275] (“Pl.’s Opp.”), at 6–7.) For example, Luminara points out that claim 12 of the ’869 Patent, which depends from claim 1, separately adds a limitation requiring “a



second light source selectively transmitting light onto the flame element” and “a light engine controller having a processor running a flame lighting program . . . wherein intensities of the light of each of the first and second light sources dynamically vary as a function of the control signals.” (Merrill Decl., Ex. 6 at col. 25, ll. 22–28 (emphasis added); see Pl.’s Br. at 13–14.) According to Luminara, “if the ‘selectively transmitting light’ language of both claim 1 and claim 12 encompassed varying light, there would be no need for claim 12 to also require a light engine controller that causes the intensities of the light to vary.” (Pl.’s Opp. at 8.)

Luminara also asserts that its proposed construction is consistent with the specifications in the Patents. (Pl.’s Br. at 12.) In particular, Luminara points to the following language:

In the particular implementation **100** of FIG. **1**, a spotlight **107** mounted above flame silhouette **125** is aimed to direct light 108 toward the element **125** to produce a spot of light **127** on the surface of flame silhouette element **125**. . . .

Light source **107** includes, for example, a light emitting diode(s) (LED(s)) or other efficient low power light source coupled with a converging lens to optically direct the produced light into a desired size and shape. . . . Alternatively, a narrow beam light source, even a laser, may be used with a diverging lens to produce the desired shape and size of light spot 127 . . . .

(Merrill Decl., Ex. 6 at col. 10, ll. 39–42 & col. 10, ll. 49–56 (emphases added); id., Ex. 5 at col. 10, ll. 25–28 & col. 10, ll. 35–42 (emphases added); see Pl.’s Br. at 12.) According to Luminara, Defendants’ proposal is based on descriptions in the specification that refer to an alternative embodiment and, thus, reads improper limitations into the claim. (Pl.’s Opp. at 4–5.) Moreover, Luminara argues, that embodiment is only found in the ’869 Patent, which

was filed after the '319 and '355 Patents, and so the language describing that embodiment cannot be used to interpret the term “selectively transmitting light” because that term was used in the '319 and '355 Patents. (Id. at 5; see Tr. 30:1–16.)

On the contrary, Defendants argue that their proposed construction, unlike Luminara's, gives effect to the word “selectively” and is supported by the specifications of the Patents. (See Defs.' Br. at 15.) In particular, Defendants point to the following language in the specification of the '355 Patent:

Light source **107** may be colored using a colored light source or filters. Light source **107** may comprise multiple light sources to produce several colors, and the light sources may be energized statically or dynamically to provide color variation. These types of controlled light production may enhance the effect of the present invention but are not necessary in most instances and may actually detract from the effect in certain applications because . . . simulating flame effects with direct modulation and control by itself does not produce suitable results in many instances. However, as an augmentation of the basic kinetic light movement principle in accordance with the present invention such direct manipulation and control of the light output may produce desirable results in particular applications.

(Merrill Decl., Ex. 4 at col. 10, ll. 24–37 (emphasis added); see Defs.' Br. at 15.) In addition, Defendants rely on specification language from the '869 Patent:

In other cases, one or both of the light sources **808, 1208** is a bi-color or multi-color source such as an LED capable of providing light **809, 1209** of two or more colors. In these cases, the sources **808, 1208** may be controlled or operated to switch between the colors to vary the color of the illumination of surface **1233, 1235** over time. For example, the source **808** and/or **1208** may be a bi-color LED that has any two of yellow, orange, or red . . . LEDs housed near the lens **810, 1210**, and each of these colored LEDs may be selectively used to provide light **809, 1209**. In other cases, one or both light sources **808, 1208** may be a multi-color LED light bulb that can transition in response to control/driver signals **1266, 1267** through a plurality of color (and brightness) combinations (e.g., the controller **1250** can select an individual

color or brightness for light 809, 1210 (which may be the same or different at any particular operating time of device 1200)).

Further, it is typically preferable that the brightness or intensity of the light 809, 1209 may be controlled by the controller 2150 over time to vary the lighting of the surfaces 1233, 1235. For example, one or both of sources 808, 1208 may be switched between on and off (e.g., to flicker or flash or pop). Also, the sources 808, 1208 may be selectively operated to have other brightness transition effects such as strobing, fading in and out in a smooth manner from a minimum (or first) intensity to a maximum (or second) intensity, and the like.

(Merrill Decl., Ex. 6 at col. 22, ll. 28–56 (emphases added); see Defs.’ Br. at 16.)

According to Defendants, there are two main faults with Luminara’s interpretation of “selectively.” First, they contend that Luminara’s proposed definition—i.e., “directing the light toward the flame silhouette”—reads “selectively” out of the claim language because it only addresses the “transmitting light onto the flame silhouette element” portion of the claim term. (Defs.’ Br. at 17.) Second, Defendants argue that Luminara’s proposed construction violates the doctrine of claim differentiation because it disregards any distinction between those claim terms that require “selectively transmit[ting]” light and those that require “directing” light or “emitting . . . light towards.” (See id. at 18.)

The Court finds that construction of the term “light source selectively transmitting light onto the flame element” is necessary because construction will affect the outcome of the case and because it would be helpful to a jury. And, the Court further concludes that, based on the intrinsic evidence, Luminara’s proposed construction is appropriate. First, the context in which the word “selectively” is used in the claim supports Luminara’s proposed construction. The word “selectively” modifies the word “transmitting,” not the

word “light,” and so describes the transmission of the light, and not the light itself. Thus, a construction that clarifies the process of transmission, rather than one that describes only the thing being transmitted, aligns more closely with the plain language of the claim.

Second, as discussed above, the presence of a limitation in a dependent claim gives rise to a presumption that the limitation is not present in the independent claim. Therefore, the presence of a limitation in dependent claim 12 that is not present in independent claim 1 gives rise to a presumption that the limitation is not present in claim 1. Here, that limitation is the requirement of a light engine controller that causes variations in the intensity of the transmitted light. As Luminara points out, if “selectively” referred to varying light intensity, there would be no need for the limitation in claim 12.

Moreover, the Court is not persuaded by Defendants’ contention that claim 12 is “very different from claim 1, regardless of what ‘selectively’ means,” and so is not instructive as to the meaning of the terms in claim 1. (Tr. 37:24–38:1.) While it is true that claim 12 adds both a light engine controller and a second light source, the second light source is one that—like the first light source in claim 1—is “selectively transmitting light onto the flame element.” (Merrill Decl., Ex. 6 at col. 25, ll. 22–23.) Because a construction that gives meaning to all of the terms of a claim is preferred over one that does not, “selectively” in claim 12 still must refer to something other than varying light intensity if both the light source “selectively transmitting light onto the flame element” and light engine controller limitations are to have meaning.

Third, claims must be read in view of the specification, and the specifications at issue support Luminara's proposed construction. For example, the specification language in the '869 Patent discussing the implementation of Figure 1 describes the aiming or directing of the light source to produce a spot of light in a particular size and shape on the flame silhouette element, which denotes careful (or, "selective")—as opposed to indiscriminate—transmission of the light onto the flame silhouette element.

On the other hand, the Court may not import limitations from the specifications into the claims, and basing the definition of "selectively" on the specification language cited by Defendants would import an improper limitation. Although that specification language uses the term "selectively," as well as terms like "manipulation" and "control," that language refers to the selective use or control of color and not of "transmission," which—as discussed above—is the term modified by the word "selectively" in the actual claim language. And, at least part of the language cited by Defendants is based on a description of one alternative embodiment in which the brightness and color of the light are varied. As Luminara noted, "[t]he fact that one embodiment described in the '869 patent includes varying light intensity or color . . . does not mean that claims which do not refer to brightness or color at all should be limited to that embodiment." (Pl.'s Opp. at 5.)

Finally, Luminara's proposed construction does not read "selectively" out of the claim language. The word "selective" includes a connotation concerning control that the word "transmitting" on its own does not. And, as discussed above, the specifications support an interpretation of the claim language that involves control (e.g., by describing the

aiming or directing of the light source to produce a spot of light in a particular size and shape on the flame silhouette element). Nor does Luminara's proposed construction necessarily disregard a distinction between the claims that require "selectively transmitting" light and those that require "directing" or "emitting . . . light towards." Rather, a patentee may use terms interchangeably, and the implication that different terms have different meanings is overcome where the evidence indicates that the terms were used interchangeably. Baran v. Med. Device Techs., Inc., 616 F.3d 1309, 1316 (Fed. Cir. 2010). Here, the intrinsic evidence indicates that the word "selectively" refers to controlling the direction of the light and, accordingly, that the term "selectively transmitting" was used interchangeably with "directing" or "emitting . . . towards." For these reasons, the Court finds that "light source selectively transmitting light onto the flame element" is properly construed as "a light source aimed to direct light toward the flame silhouette."

**C. "Displaced in a random pattern"; "chaotic motion"**

The parties dispute the meaning of the term "displaced in a random pattern" as it appears in claim 3 of the '319 Patent and claims 8, 27, and 32 of the '869 Patent. (Joint Statement at 12.) They also dispute the meaning of the term "chaotic motion" as it appears in claims 16 and 22 of the '355 Patent and claim 17 of the '319 Patent. (Id.) Luminara asserts that no construction of these terms is needed, but that, if the Court construes the term, the proper construction of "displaced in a random pattern" is "moved in a haphazard course without a definitive direction," and that the proper construction of "chaotic motion" is "unpredictable motion at the coupling member." (Id.) Defendants propose that the

Court should construe “displaced in a random pattern” as “moved from an original place without a specific pattern,” and “chaotic motion” as “motion without a specific pattern.” (Id.)

In support of its argument, Luminara asserts that Defendants’ non-infringement and invalidity contentions do not depend on the meaning of the terms, and so construction is not required. (Pl.’s Br. at 14–16.) In fact, Luminara argues that a jury would be more confused if given a definition because the terms at issue are normal words that people use and understand. (Tr. 42:2–8; Pl.’s Opp. at 9.) That being said, Luminara argues that its proposed definitions are more consistent with the specifications, which distinguish the inventions from the prior art on the grounds that the inventions rely on unpredictable or uncontrolled motion and the prior art relies on controlled motion. (Pl.’s Br. at 15; see id. at 16–17.) In particular, Luminara relies on the following specification language, which is present in all four of its Patents:

The present invention involves devices that create lighting effects driven by real, chaotic and physical movements and methods for making and using such devices. Prior devices that attempt to simulate flickering flames generally used modulated or controlled motion to mimic a flame, but these devices produced less than ideal results in part because the complexity of a natural flame is difficult to mimic or simulate.

(Merrill Decl., Ex. 4 at col. 4, ll. 10-16; id., Ex. 5 at col. 4, ll. 39-45; id., Ex. 6 at col. 4, ll. 52-58; id., Ex. 7 at col. 4, ll. 52-58; see Pl.’s Br. at 15.) Luminara also contends that its proposed constructions are more consistent with the plain meaning of the terms. (See Pl.’s Br. at 16–17; Joint Statement at 12.)

As for Defendants’ constructions, Luminara asserts that the claims at issue state that “the pendulum member [] is displaced in a random pattern over time,” (Merrill Decl., Ex. 5 at col. 21, ll. 47–48 (emphasis added); *id.*, Ex. 6 at col. 24, ll. 54–55 & col. 26, ll. 34–35, 53–54 (emphasis added)), and that defining “displaced in a random pattern” to require movement from “an original place” contradicts that language, (*see* Pl.’s Br. at 15–16). According to Luminara, the “over time” language indicates that the displacement continues and is not limited to displacement from an original source. (*Id.* at 16.)

For their part, Defendants assert that construction is necessary because the jury will be confused about the use of two terms that seem to have similar meanings but are used differently in the claim language. (*See* Tr. 42:21–43:6.) They also argue that the jury will be confused by the term “displaced in a random pattern” because “random” means “‘lacking a definite plan, purpose, or pattern.’” (Defs.’ Br. at 24 (emphases in original) (quoting *Webster’s New Collegiate Dictionary* 974 (9th ed. 1984).) As to that term, Defendants assert that their proposed construction comports with the ordinary meaning of the claim language by simply combining the dictionary definitions of “displace” (i.e., “to move, shift, or force from the usual place or position”) and “random” (i.e., “having no specific pattern, purpose, or objective”). (*Id.* at 23 (quoting *American Heritage Dictionary* 521 (5th ed. 2011).) And, Defendants contend that the specifications support the proposition that the motion of the flame body lacks a specific pattern and that the flame body moves from a resting position:



The displacement, **D1<sub>Kinetic</sub>**, may vary widely to practice the invention but may be a random pattern with movements of up to 0.5 inches or more in any direction from an origin or at rest position.

. . . .

In some preferred embodiments, support element **113** may include a rigid or semi-rigid wire such as a steel or steel alloy wire or rod and is preferably bent to form a low spot at a location where it is desired for pendulum **111** to rest . . . .

(Merrill Decl., Ex. 4 at col. 5, ll. 57–60 & col. 7, ll. 24–28; see Defs.’ Br. at 24.) On the other hand, Defendants argue, Luminara’s “without a definitive direction” language is unsupported and unclear because the direction of the pendulum is definitive once it begins moving, even if there is no specific pattern. (Defs.’ Br. at 24–25.)

As for the claim term “chaotic motion,” Defendants assert that it, too, should incorporate the definition “without a specific pattern” because the Luminara Patents use the terms “random” and “chaotic” interchangeably. (Id. at 25.) In particular, Defendants point to the following language in the specification of the ’355 Patent: “A magnetic field, **M<sub>2</sub>**, produced by upper magnet **515** is coupled to a lower magnet **524** on upper pendulum **521** to cause it to move chaotically or with kinetic/random displacement or motion, **D2<sub>Kinetic</sub>**.” (Merrill Decl., Ex. 4 at col. 13, ll. 42–45 (emphasis added); see Defs.’ Br. at 25–26.) Finally, Defendants argue that Luminara’s proposed construction is flawed because it improperly references the “coupling member,” which is a separate limitation, (Defs.’ Br. at 26), and because, in each of the asserted claims, the “chaotic motion” is transferred to the “flame body” and so there is chaotic motion in places other than the coupling member, (id. at 26–27).

The Court agrees with the parties that the terms at issue are “ordinary, commonly understood terms that should receive their ordinary meaning,” (Tr. 42:2–8, 46:2–4), and finds that construction of the terms would not aid the jury. Instead, the proposed constructions introduce confusion into the meaning of the claim terms or simply replace the words in the claim terms with synonyms that do not enhance comprehension. For example, Defendants have attempted to incorporate into the term “displaced” a requirement that the movement stem from “an original place.” But, as Luminara points out, per the claim language the displacement occurs “over time.” Thus, because the displacement is continuing, it is not clear which “place” would be considered “an original place.” Defendants have also attempted to replace “random pattern” with “without a specific pattern,” contending that “random pattern” is an oxymoron because “random” means “lacking a pattern.” (See Def.’s Br. at 24.) But, even the dictionaries upon which Defendants rely define “random” to mean lacking a “definite” or “specific” pattern, not simply “lacking a pattern.” Thus, “random pattern” is not an oxymoron; “random” supplies the connotation that the pattern is not “definite” or “specific.” Accordingly, Defendants’ construction of “displaced in a random pattern” does not clarify the meaning of that term. Similarly, Luminara’s proposed construction that “random pattern” means “haphazard course without a definitive direction” imports more synonyms for “random” and “chaotic” and would likely serve to cause, rather than to eliminate, confusion.

The parties’ proposed constructions of “chaotic motion” are equally unhelpful. Replacing “chaotic” with “unpredictable” or “without a specific pattern” simply

substitutes equally-understandable words for the inventor’s already-understandable claim language and is unnecessary. And, as Defendants point out, “at the coupling member,” as used in Luminara’s proposed definition, improperly adds a limitation to the claim term. For these reasons, the Court declines to construe the claim terms “displaced in a random pattern” and “chaotic motion.”

**D. “Flame body” or “body”**

The parties dispute the meaning of the terms “flame body” and “body” as they appear in claims 16 and 22 of the ’355 Patent; claim 17 of the ’319 Patent; and claims 1 through 4, 13 and 14, 18 through 20, and 22 of the ’166 Patent. (Joint Statement at 13.) Luminara asserts that no construction of these terms is necessary, but that if the Court construes the terms, the proper construction of “flame body” is “a pendulum member attached to a flame silhouette.” (*Id.*) Luminara argues that the Court already construed the term “body” when ruling on Luminara’s Motion for a Preliminary Injunction, and that there is no need to revisit the issue. (Pl.’s Br. at 17–18.) For their part, Defendants assert that the proper construction of “flame body” or “body” is “a pendulum attached to a flame silhouette.” (Joint Statement at 13.)

The Court finds that neither of these terms is readily understandable and, therefore, construction is necessary. The only difference between the parties’ proposed definitions of the term “flame body” is that Luminara’s definition includes the word “member.” Because Defendants have stated that they accept Luminara’s construction,

(Defs.' Opp. at 17; Tr. at 67:12-16), the Court will adopt Luminara's proposed definition and construe "flame body" to mean "a pendulum member attached to a flame silhouette."

The parties do, however, disagree as to the scope of the claim term "body." More specifically, they disagree as to the meaning of the word "attached," which is part of their proposed constructions. (See, e.g., Tr. 67:17-22, 69:3-12, 70:18–71:4.) Defendants argue that "body" must be construed such that it does not cover a "body" with an "integrated" flame silhouette—i.e., the body and flame silhouette must be "separate" structures. (See, e.g., Defs.' Opp., at 15; Defs.' Br. at 18–19.) Luminara, on the other hand, asserts that the Court should not diverge from its previous ruling on Luminara's Motion for a Preliminary Injunction that the body and flame silhouette are separately defined components that do not need to be detachable. (Pl.'s Opp. at 12–13; see Pl.'s Br. at 17–18.)

Because "the court's obligation is to ensure that questions of the scope of the patent claims are not left to the jury," it must "assign 'a fixed, unambiguous, legally operative meaning to the claim[s].'" Every Penny Counts, Inc. v. Am. Express Co., 563 F.3d 1378, 1383 (Fed. Cir. 2009) (citation omitted). This obligation extends to interpreting the meaning of a word within a proposed definition of a claim term if the scope of the word is unclear. See id. (finding no error in the district court's consideration of the phrase "sales price," which was part of the proposed construction of a disputed claim term, because the court otherwise would have failed in its duty to assign a fixed and unambiguous meaning to the claim). Therefore, the Court will consider the parties'

arguments regarding the meaning of the word “attached” as used within their proposed constructions of the claim term “body.”

As Luminara notes, the Court considered Luminara’s then-proposed construction of the claim term “body” when ruling on Luminara’s Motion for a Preliminary Injunction. See Luminara Worldwide, LLC v. Liown Elecs. Co., No. 14-cv-3103 (SRN/FLN), 2015 WL 1967250, at \*6 (D. Minn. May 1, 2015). At that time, Luminara had proposed that “the term ‘body’ means ‘a pendulum member to which a flame silhouette is attached.’” Id. (citation and emphasis omitted). Defendants accepted Luminara’s proposed construction for purposes of that motion, but they argued that, under that construction, “the ‘body’ and the ‘flame silhouette’ must be two separate pieces that are attached to each other.” Id. (citation omitted). After considering the plain meaning of the term and the specification of the Patent, this Court concluded:

In this case, nothing in the intrinsic evidence indicates that the body and flame silhouette must be two, detachable pieces. Therefore, the Court disagrees with Defendants’ interpretation of claim 1 and construes claim 1 consistent with the plain and ordinary meaning of the terms used. Pursuant to the language in claim 1, the body, one separately defined component, may be attached to, but not detachable from, the flame silhouette, another separately defined component. Figure 1 of the specification describes only one embodiment of the claimed body and flame silhouette, but in the circumstances of this case, the record is devoid of “clear statements of scope” that define the body and the flame silhouette as two separate, detachable components. See id. Absent such clear statements of scope, the Court is constrained to follow the language of the claim, rather than the depiction in Figure 1. See SRI Intern v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1121 (Fed. Cir. 1985); Texas Instruments, Inc. v. U.S. Int’l Trade Comm’n, 805 F.2d 1558, 1563 (Fed. Cir. 1986) (cautioning “against limiting the claimed invention to preferred embodiments or specific examples in the specification.”).

Moreover, the Court notes that Figure 11 in the specification depicts a unitary body and flame silhouette. . . . In sum, the Court rejects Defendants’ construction requiring two detachable components, and construes claim 1 as encompassing an integrated structure that has both a body section and flame silhouette section.

Id. at \*7 (emphases added). In other words, “the body and flame silhouette may be separately defined parts of a single, unitary structure.” Id. at \*8.

In addition to incorporating the arguments they raised in opposition to the Motion for a Preliminary Injunction, (see Defs.’ Br. at 19), which the Court rejected, Defendants now argue that the “body” must be construed as “separate” from the “flame silhouette” because: (1) the term “body” is different than the separate term “flame body,” which implies both a pendulum and a flame silhouette; (2) the “body” and “flame silhouette” limitations are listed separately and so must be distinct components; and (3) claim 1 of the ’166 Patent requires the flame silhouette to “‘extend[] outward from the upper portion of the body,’” and permitting a “body” to have an integrated flame silhouette would illogically require the flame silhouette to extend outward from itself. (Id. at 19–21.) In making this final argument, Defendants rely heavily on Becton, Dickinson & Co. v. Tyco Healthcare Group, in which the claim at issue consisted of four elements: (1) a “needle cannula,” (2) a “guard,” (3) a “hinged arm,” and (4) a “spring means connected to said hinged arm.” 616 F.3d 1249, 1254 (Fed. Cir. 2010). The district court construed the fourth limitation to mean that “[t]he hinged arm is connected to a spring that moves the guard along the cannula toward’ the tip of the needle,” and stated that the construction contemplated that the spring means and hinged arm were separate structures. Id. at

1253–54. However, the district court later held that the construction did not require the spring means and hinged arm to be distinct structural elements. Id. at 1254. On appeal, the Federal Circuit concluded that the latter holding was in error because the implication of the claim language in listing the elements separately was that they were distinct components, there was nothing in the claims to suggest that those components could be the same structure, and the specification only disclosed spring means and hinged arms as separate structures. Id. The court also stated that “[the plaintiff’s] assertion that the spring means and the hinged arm can be the same structure renders the asserted claims nonsensical” because:

Independent claim 1 of the ’544 patent describes the spring means as being “connected to” the hinged arm and independent claim 24 describes it as “extending between” the hinged arm and a mounting means. If the hinged arm and the spring means are one and the same, then the hinged arm must be “connected to” itself and must “extend between” itself and a mounting means, a physical impossibility. A claim construction that renders asserted claims facially nonsensical “cannot be correct.”

Id. at 1255 (footnote omitted) (emphasis added).

The Court finds that interpretation of the scope of the word “attached” is necessary to aid the jury, but Defendants have not persuaded the Court to stray from its earlier reasoning. In fact, Defendants’ first two “new” arguments are consistent with the Court’s Preliminary Injunction Order. The “flame body” (defined as “a pendulum member attached to a flame silhouette”) is the sum of the “body” and “flame silhouette” components, whether combined or “integrated”; the “body” (defined as “a pendulum member to which a flame silhouette is attached”) is the portion of the sum of those

components that is not the flame silhouette. Thus, Defendants’ arguments are not inconsistent with an interpretation of the word “attached” that allows component parts to be “integrated.”

As for Defendants’ third argument, Becton is distinguishable from the present facts. Unlike the plaintiff in that case, Luminara does not contend that the separately-listed “body” and “flame silhouette” elements are “one and the same,” but rather that they are distinct components that can be integrated.<sup>6</sup> Accordingly, Luminara’s—and this Court’s prior—interpretation of the word “attached” as encompassing component parts that are “integrated” does not render the asserted claim nonsensical. As Luminara points out: “Unlike other claims that refer to a ‘flame body,’ which already includes a flame silhouette element, claim 1 requires a body and a flame silhouette element extending from the upper portion of the body. . . . The flame silhouette element extends from the body, not from itself.” (Pl.’s Opp. at 13 (emphasis added) (citation omitted).) Accordingly, the Court finds that “body” is properly construed as “a pendulum member to which a flame silhouette is attached,” and that “attached” may encompass “separate” components that are “integrated.”

#### **E. “Flame silhouette element” or “flame element”**

The parties dispute the meaning of the term “flame silhouette element” as it appears in claims 1 and 3 through 5 of the ’319 Patent and claims 1, 2, 7, 20, and 26 of the

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<sup>6</sup> In addition, unlike the specification in Becton, the specification of the ’166 Patent (in Figure 11) discloses a “body” and “flame silhouette” as an integrated structure. See Luminara Worldwide, LLC, 2015 WL 1967250, at \*7.



'166 Patent. (Joint Statement at 13.) They also dispute the meaning of the term “flame element” as it appears in claims 1, 5 through 7, 19, 26, and 31 of the '869 Patent. (Id. at 14.) Luminara asserts that no construction of these terms is needed because a jury will be able to identify the “flame silhouette element” on either Luminara’s or Defendants’ products, and because Defendants do not dispute that their products contain a flame silhouette element. (See Pl.’s Br. at 20.) However, Luminara asserts that, if the Court construes the terms, the proper construction is “shaped material, attached to the flame body, on which light is projected from a light source and reflected off the surface of the silhouette.” (Joint Statement at 13.)

Defendants assert that the Court should construe “flame silhouette element” or “flame element” because the terms will not be familiar to a jury. (Defs.’ Br. at 22.) They further argue that the terms should be construed to mean “a geometric or arbitrary-shaped part attached to a pendulum.” (Joint Statement at 13.) According to Defendants, their construction will make it clear that the “flame silhouette element” need not be shaped like a flame, while Luminara’s proposed construction improperly adds “light source” and “reflective surface” requirements. (Defs.’ Br. at 22.)

The Court finds that construction of these terms would be helpful to a jury and that Defendants’ proposal is appropriate. Luminara neither contests that the flame silhouette need not be flame shaped—instead stating only that “[t]he specification provides that it is preferred that the flame silhouette is flame shaped,” (Pls.’ Opp. at 10 (emphasis added))—nor points to any convincing support for the extraneous language requiring

light projection and reflection. Accordingly, the Court finds that “flame silhouette element” and “flame element” are properly construed as “a geometric or arbitrary-shaped part attached to a pendulum.”

#### **F. The “pivot” terms**

The parties dispute the meaning of several “pivot” terms: “pivot” or “pivot about” as they appear in claim 33 of the ’869 Patent, claims 16 and 22 of the ’355 Patent, and claim 17 of the ’319 Patent; “free to pivot” as it appears in claim 1 of the ’166 Patent; and “swings or pivots freely” as it appears in claim 14 of the ’166 Patent. (Joint Statement at 14–15.) Luminara asserts that none of these terms needs to be construed, but that if the Court does construe the terms, the proper construction of “pivot” or “pivot about” is “to run on, or as if on a pivot,” and the proper construction of “free to pivot” or “swings or pivots freely” is “free to run on, or as if on a pivot.” (*Id.*; *see* Pl.’s Br. at 21 n.2.) Luminara argues that the Court previously construed “pivot” as used in the ’166 Patent when ruling on Luminara’s Motion for a Preliminary Injunction, and that there is no need to reverse its earlier conclusion “that claims 1 and 14 require free, chaotic pendulum movement,” or to adopt a different meaning of “pivot” where it is used in related patents. (Pl.’s Br. at 21–22, 24–26.)

Defendants, on the other hand, assert that the Court should construe “pivot” or “pivot about” as “to turn round or rotate relative to [an] axis.” (Joint Statement at 14.)<sup>7</sup>

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<sup>7</sup> Defendants’ proposed construction originally included the phrase “fixed axis,” (*see* Joint Statement at 14), but they changed the language to “an axis” to address concerns raised by Luminara, (*see* Defs.’ Opp. at 11). Accordingly, the Court will not address Luminara’s arguments on that point.

Defendants argue that Luminara’s proposed construction would not be helpful to a jury because it simply replaces the verb “pivot” with the noun “pivot,” and that it is awkward because it references the motion associated with a pivot but does not require an actual pivot (e.g., a shaft or pin). (Defs.’ Opp. at 9.) According to Defendants, their proposed construction is clearer, and they accepted Luminara’s earlier proposal only for the purposes of the preliminary injunction motion. (Id.)

As for “free to pivot” and “swings or pivots freely,” Defendants argue that a proper construction is “free to turn round or rotate relative to [an] axis” and “swings or turns round or rotates relative to [an] axis freely,” respectively. (Joint Statement at 14–15.)<sup>8</sup> Defendants argue that the Court did not construe these terms in its Preliminary Injunction Order, but instead only construed the term “pivot,” and that its construction does not require “chaotic motion.” (Defs.’ Opp. at 11.) They contend that “free” and “freely” must be given their ordinary meaning, which is simply to denote that there is no impediment to the ability to pivot, and that those broad terms cannot be used to import into the claims a “chaotic motion” requirement. (Id. at 11–13.)

It is true, as Luminara notes, that the Court used Luminara’s proposed definition of the term “pivot” in its Preliminary Injunction Order for purposes of analyzing whether there was a substantial question of invalidity of the ’166 Patent. See Luminara Worldwide, LLC, 2015 WL 1967250, at \*6, \*10–12. However, the Court did so based

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<sup>8</sup> Again, Defendants’ proposed construction of these terms originally included the phrase “fixed axis,” (see Joint Statement at 14), but Defendants changed the language to “an axis” to address concerns raised by Luminara, (see Defs.’ Opp. at 11). Accordingly, the Court will not address Luminara’s arguments on that point.

on Defendants’ acceptance of the definition, which was only for the purposes of that motion. See id. at \*6. That being said, Luminara’s proposed language is appropriate with one exception, discussed below.

The Court finds—and based on their reliance upon dictionary definitions to support their proposals, the parties apparently agree—that the term “pivot” should be given its plain and ordinary meaning. (See Joint Statement at 14.) And, each of the dictionaries referenced by the parties defines “pivot” to mean “[t]o turn on or as if on a pivot.” Mirriam-Webster’s Collegiate Dictionary 945 (11th ed. 2003); Webster’s New Collegiate Dictionary 897 (9th ed. 1984); see The American Heritage Dictionary of the English Language 1345 (5th ed. 2011) (“[t]o turn on a pivot”); Webster’s New International Dictionary 1727 (3d ed. 1986) (“turning on or as if on a pivot”). Thus, Luminara’s proposed definition is the most consistent with the dictionary definitions—i.e., the plain and ordinary meaning of “pivot”—even though, as Defendants contend, it includes “pivot” as a noun and does not require an actual pivot. However, because Luminara has not explained its substitution of the word “run” for “turn,” and because the Court finds no support for that substitution, the Court declines to fully adopt Luminara’s proposal. For these reasons, the Court finds that the proper construction of “pivot” or “pivot about” is “to turn on or as if on a pivot.”<sup>9</sup> And, because the Court agrees with the

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<sup>9</sup> As for the Court’s comment in its Preliminary Injunction Order that claim 1 of the ’166 Patent requires “chaotic pendulum movement,” see Luminara Worldwide, LLC, 2015 WL 1967250, at \*12, the Court was analyzing the entire final element of claim 1 (i.e., “a flame support element such that the flame support element passes through the hole and body is free to pivot when supported by the flame element”), id. at \*11. And, as Luminara’s counsel noted at the hearing, “[t]hat entire claim language all has meaning.”

parties that the words “free to” and “freely” should be assigned their ordinary meaning—i.e., that there is no restriction on the pivoting at issue, (see Defs.’ Br. at 14; Pl.’s Opp. at 14)—and because a jury will not need help understanding what those words mean, the Court finds that no additional construction of the claim terms “free to pivot” and “swings or pivots freely” is necessary.<sup>10</sup>

### **G. “Magnetic core”**

The parties originally disputed the meaning of the term “magnetic core” as it appears in claim 21 of the ’355 Patent. (Joint Statement at 16.) Luminara asserted that no construction of this term is needed, but that, if the Court construes the term, the proper construction is “magnetic material.” (Id.) Defendants asserted that construction is necessary because their products do not include a magnetic core, (Defs.’ Opp. at 19), and that the proper construction of “magnetic core” is “iron, iron alloys, ferrite, permalloy, and other available magnetic core materials located within the coil of an electromagnet,” (Joint Statement at 16). At the hearing on this matter, Luminara stated that it would accept Defendants’ construction. (Tr. 95:4-9.)

The Court finds that this term is not readily understandable and, therefore, construction is necessary. Because Luminara does not contest Defendants’ proposed construction, the Court will adopt Defendants’ definition and construe “magnetic core” to

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(Tr. 91:17–18.)

<sup>10</sup> The Court’s Preliminary Injunction Order did not import a specific definition into the term “free to pivot,” as the Court was not asked to construe that term.

mean “iron, iron alloys, ferrite, permalloy, and other available magnetic core materials located within the coil of an electromagnet.”

#### **H. Absence of the term “single pendulum”**

Finally, the parties dispute whether the absence of the term “single pendulum” from all of the claims of Liown’s ’986 and ’137 Patents should be noted for the jury. (Joint Statement at 17.) More specifically, Luminara asserts that the Court should hold that “[n]one of the claims [of] the ’986 or ’137 patent includes the terms ‘single pendulum’ or ‘single stage’ candle.” (*Id.*) According to Luminara, Defendants’ contention that the claims “‘require single pendulum implementation’” is not supported by any evidence and, in fact, is refuted by certain figures in the specifications that depict two pendulums. (*See* Pl.’s Br. at 27–28.) Therefore, Luminara argues, “[t]he Court should not allow Defendants to recast Liown’s patents as a different invention from what is actually claimed in either of Liown’s patents.” (*Id.* at 28.)

Defendants assert that the Court need not interpret the meaning of the absence of the term “single pendulum” from the claims of the ’986 and ’137 Patents because there is no dispute that the phrase does not appear in those claims. (Joint Statement at 17.) Although Defendants argue that “the claims nevertheless require single pendulum implementation,” (*id.*), they assert that Luminara has not identified any actual claim term to be construed and is simply attempting to extract an impermissible advisory opinion from the Court, (Defs.’ Br. at 28–29).

The Court agrees with Defendants and finds that the proposed construction is unnecessary and unwarranted. The parties agree that the term “single pendulum” is not present in any of the claims of the ’986 and ’137 Patents, and the jury will be able to make that observation for itself. Moreover, as Defendants point out, there is no actual claim term in dispute. Rather, Luminara appears to challenge the scope of the overall Patents, pointing to, for example, all of the language in dependent claim 9 of the ’986 Patent and part of the language of independent claim 1 of that Patent to argue that claim 9 does not require a single-pendulum design. (See Pl.’s Opp. at 16–17.) However, the Court declines to address the scope of that language when no particular disputed claim term has been identified. For these reasons, the Court finds that no interpretation of the absence of the term “single pendulum” from all of the claims of the ’986 and ’137 Patents is appropriate at this time.

#### **IV. CONCLUSION**

Based on the foregoing, and all the files, records, and proceedings herein, **IT IS HEREBY ORDERED THAT** the claims at issue are construed as set forth in this Memorandum Opinion and Order.

Dated: February 22, 2016

s/Susan Richard Nelson  
SUSAN RICHARD NELSON  
United States District Judge